Geotechnical Engineering • Special Inspection • Materials Testing • Environmental Consulting



Project:	East Eagle Harbor OU 2016 OMMP Monitoring	Date Received: January 25, 2017
Project #:	17T001-003	Sampled By: Others
Client :	Analytical Resouces, Inc.	Date Reported: February 8, 2017
Source:	Multiple	Tested By: K. O'Connell
MTC Sample#:	Multiple	
-		

CASE NARRATIVE

Eight samples were submitted for grain size analysis according to Puget Sound Estuary Protocol (PSEP) methodology.
 The samples were run in a single batch and one sample from this job was chosen for triplicate analysis. The triplicate data is reported on the QA summary.
 Two samples contained shell fragments which may have broken down, affecting the grain size analysis.
 The data is provided in summary tables and plots.
 There were no other noted anomalies in this project.

All results apply only to actual locations and materials tested. As a mutual protection to clients, the public and ourselves, all reports are submitted as the confidential property of clients, and authorization for publication of statements, conclusions or extracts from or regarding our reports is reserved pending our written approval.

Reviewed by:

 Corporate ~ 777 Chrysler Drive
 • Burlington, WA 98233
 • Phone (360) 755-1990
 • Fax (360) 755-1980

 Regional Offices:
 Olympia ~ 360.534.9777
 Bellingham ~ 360.647.6111
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Materials	Testing 8	& Consult	ing, Inc.

Project: <u>I</u>	East Eagle Harbor OU 2016 OMMP Monitoring	Client:	Analytical Resouces, Inc.
Project #: 1	17T001-003		
Date Received: J	fanuary 25, 2017	Sampled by:	Others
Date Tested: I	February 6, 2017	Tested by:	K. O'Connell

Apparent Grain Size Distribution Summary

Percent Finer Than Indicated Size

Sample No.		Gravel		Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Silt			Clay		
Phi Size	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
Sieve Size (microns)	3/8"	#4 (4750)	#10 (2000)	#18 (1000)	#35 (500)	#60 (250)	#120 (125)	#230 (63)	31.0	15.6	7.8	3.9	2.0	1.0
	100.0	96.7	69.6	57.4	43.5	33.6	29.0	22.5	16.3	12.5	9.5	7.1	5.3	3.8
17A0304-08	100.0	98.0	70.5	57.7	44.0	34.0	29.5	23.1	16.1	12.0	9.8	7.3	5.3	3.7
	100.0	95.2	68.5	56.6	41.7	31.6	26.8	21.0	16.0	12.3	9.5	6.9	5.3	3.9
17A0304-01	100.0	93.6	83.2	67.0	45.4	23.2	12.8	6.8	3.5	2.9	2.3	1.9	1.5	1.2
17A0304-02	100.0	91.8	90.2	85.1	73.7	47.9	25.8	12.8	7.9	5.7	4.5	3.8	3.0	2.2
17A0304-03	100.0	99.7	99.0	96.5	81.2	41.7	19.6	11.7	7.5	5.9	4.6	3.7	2.8	2.1
17A0304-04	100.0	97.7	95.2	91.5	74.1	41.1	25.0	10.6	4.4	3.1	2.5	2.1	1.6	1.2
17A0304-05	100.0	98.4	98.1	97.0	93.5	80.3	54.4	21.9	10.1	7.2	5.6	4.5	3.5	2.8
17A0304-06	100.0	92.8	70.7	61.0	51.1	43.4	34.4	22.6	14.2	10.8	8.1	6.2	4.6	3.2
17A0304-07	100.0	94.5	71.0	62.0	51.7	43.9	34.7	23.2	15.3	11.1	7.8	6.0	4.5	3.2

Notes to the Testing: Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

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Materials	Testing 8	(III)	ing, Inc.
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Client: Analytical Resouces, Inc.
Sampled by: Others
Tested by: K. O'Connell

Apparent Grain Size Distribution Summary

Percent Retained in Each Size Fraction

Sample No.	Gravel	Very Coarse Sand	Coarse Sand	Medium Sand	Fine Sand	Very Fine Sand	Coarse Silt	Medium Silt	Fine Silt	Very Fine Silt		Clay		Total Fines
Phi Size	< -1	-1 to 0	0 to 1	1 to 2	2 to 3	3 to 4	4 to 5	5 to 6	6 to 7	7 to 8	8 to 9	9 to 10	> 10	> 4
Sieve Size (microns)	>#10 (2000)	10-18 (2000- 1000)	18-35 (1000-500)	35-60 (500-250)	60-120 (250- 125)	120-230 (125-62)	62.5-31.0	31.0-15.6	15.6-7.8	7.8-3.9	3.9-2.0	2.0-1.0	<1.0	<230 (<62)
	30.4	12.3	13.9	9.9	4.6	6.5	6.2	3.8	3.0	2.5	1.7	1.5	3.8	22.5
17A0304-08	29.5	12.8	13.7	10.0	4.5	6.4	7.0	4.1	2.2	2.5	2.0	1.6	3.7	23.1
	31.5	11.9	14.9	10.1	4.7	5.9	5.0	3.6	2.9	2.5	1.6	1.4	3.9	21.0
17A0304-01	16.8	16.2	21.6	22.2	10.4	6.0	3.3	0.6	0.5	0.4	0.4	0.3	1.2	6.8
17A0304-02	9.8	5.1	11.4	25.8	22.1	13.0	4.9	2.2	1.2	0.7	0.8	0.8	2.2	12.8
17A0304-03	1.0	2.5	15.3	39.6	22.1	7.8	4.2	1.7	1.3	0.9	0.8	0.8	2.1	11.7
17A0304-04	4.8	3.7	17.4	33.0	16.1	14.4	6.2	1.3	0.6	0.4	0.5	0.4	1.2	10.6
17A0304-05	1.9	1.1	3.5	13.2	25.9	32.5	11.7	3.0	1.6	1.1	1.0	0.7	2.8	21.9
17A0304-06	29.3	9.7	9.9	7.7	8.9	11.8	8.4	3.4	2.7	1.9	1.6	1.4	3.2	22.6
17A0304-07	29.0	9.0	10.3	7.8	9.1	11.5	7.9	4.2	3.3	1.8	1.5	1.3	3.2	23.2

Notes to the Testing: Organic matter was not rem		

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Project: East Eagle Harbor OU 2016 OMMP Monitorin

Project #: 17T001-003

Date Received: January 25, 2017

Date Tested: February 6, 2017

Client: Analytical Resouces, Inc.

Sampled by: Others

Tested by: K. O'Connell

Relative Standard Deviation, By Phi Size

	Rolative Standard Deviation, By 1 in Size													
Sample ID	-3	-2	-1	0	1	2	3	4	5	6	7	8	9	10
	100.0	96.7	69.6	57.4	43.5	33.6	29.0	22.5	16.3	12.5	9.5	7.1	5.3	3.8
17A0304-08	100.0	98.0	70.5	57.7	44.0	34.0	29.5	23.1	16.1	12.0	9.8	7.3	5.3	3.7
	100.0	95.2	68.5	56.6	41.7	31.6	26.8	21.0	16.0	12.3	9.5	6.9	5.3	3.9
AVE	100.0	96.6	69.6	57.2	43.1	33.1	28.4	22.2	16.1	12.3	9.6	7.1	5.3	3.8
STDEV	0.0	1.1	0.8	0.5	1.0	1.1	1.2	0.9	0.1	0.2	0.1	0.2	0.0	0.1
%RSD	0.0	1.2	1.2	0.8	2.3	3.2	4.0	4.0	0.9	1.9	1.6	2.3	0.2	2.2

The Triplicate Applies To The Following Samples

Client ID	Date Sampled	Date Extracted	Date Complete	QA Ratio (95-105)	Data Qualifiers	Pipette Portion (5.0- 25.0g)
	1/24/2017	1/26/2017	2/6/2017	101.8		6.9
17A0304-08	1/24/2017	1/26/2017	2/6/2017	103.2		6.9
	1/24/2017	1/26/2017	2/6/2017	100.6		6.3
17A0304-01	1/23/2017	1/26/2017	2/6/2017	101.0		8.3
17A0304-02	1/23/2017	1/26/2017	2/6/2017	99.2		6.9
17A0304-03	1/23/2017	1/26/2017	2/6/2017	100.6		9.2
17A0304-04	1/23/2017	1/26/2017	2/6/2017	101.2		13.1
17A0304-05	1/24/2017	1/26/2017	2/6/2017	101.4		8.2
17A0304-06	1/24/2017	1/26/2017	2/6/2017	101.8		7.7
17A0304-07	1/24/2017	1/26/2017	2/6/2017	102.3		7.8

*	MTC	Internal	QA	limits	=	95-	105	%
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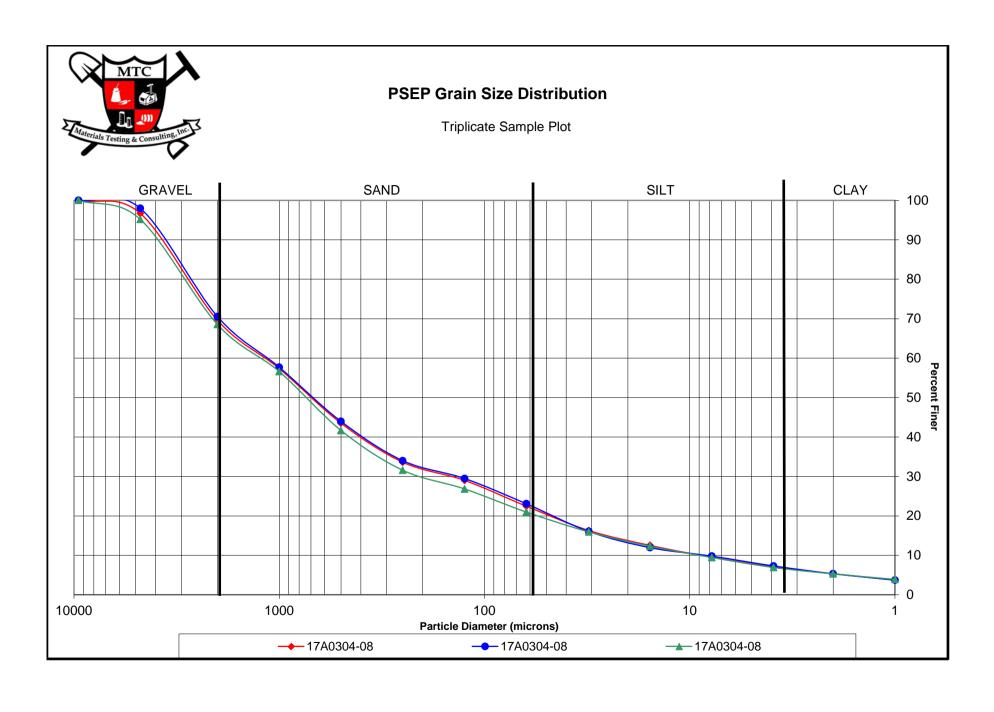
Notes to the Testing: Organic matter was not removed prior to testing, thus the reported values are the "apparent" grain size distribution. See narrative for discussion of the testing.

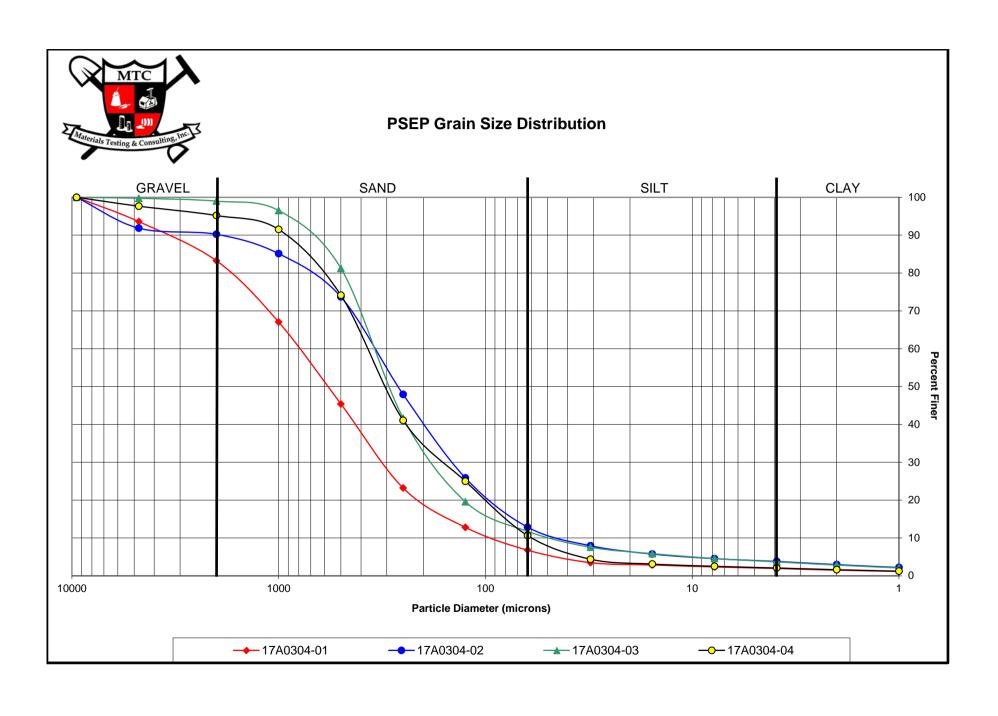
Reviewed by:

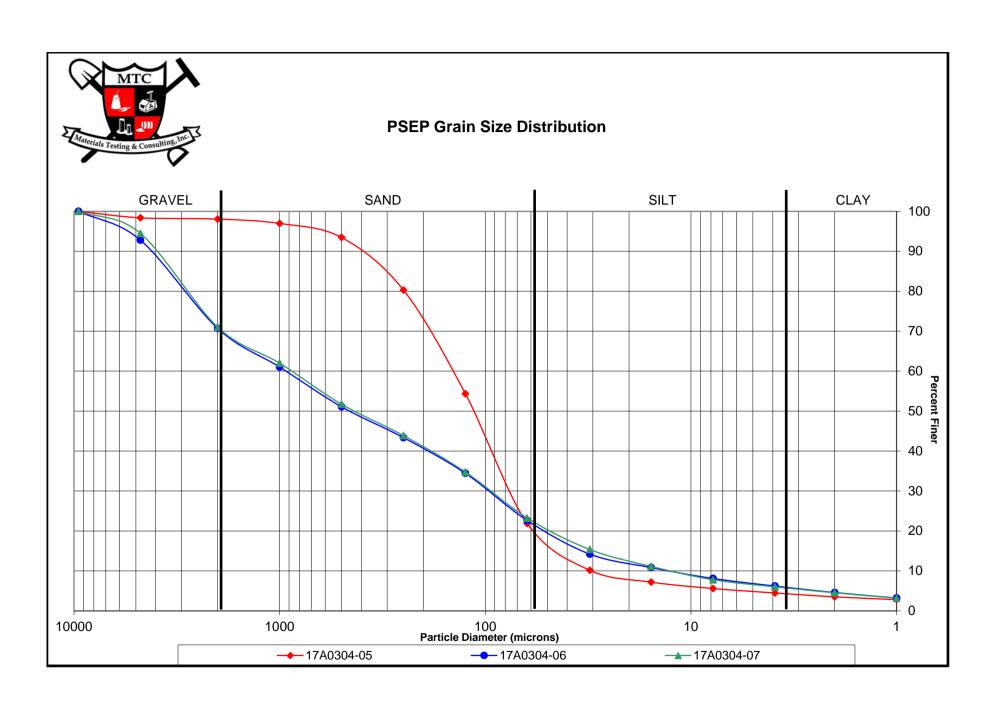
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Project: East Fa	gce Harber	Client: Analytica Resources							
Project #: 17TOC	1.003			y: Others					
Location: 17A03	304-08		Date Sample	241	17				
Lab #117 -02		Date Setup: 01 - 26 17							
Description: Grey S	andySH								
~	OS CONTENT	_	Equipment Used: TCA 000, TSA 1067 TCA 001 SIEVE ANALYSIS						
Moisture Content	Initials: Kp	7							
Tare #	F0)				01.27.17				
Tare Weight	1-5229			Sieve Set #					
Wet Weight+Tare	36.4696			Initials Sieve Size					
Dry Weight+Tare	YOU'S	1			Weight Retained				
	25.0689			Tare	51.0903				
Test Sample	Initials:]		#4	52.1070				
Tare #				#10	60.4100				
Tare Weight	107			#18	64.1718				
Wet Weight+Tare	51.0850			#35	68.4220				
Dry Weight+Tare	76.6281			#60	71.4594				
21y Weight Tare	75. 2495			#120	72.8712				
ı Batch #:	001			#230	74.8781				
2/3/2017	35b			PAN	0.4285				
PIPETTI Temp:22	E ANALYSIS			SALT COR	RECTION				
TIME Initials:	<i>1</i> 0		Date:		Initials:				
11:15:00 Tare #	Tare Wt Dry Wt+Tare		Tare V	Veight	•				
11:15:20	1.43201-5688		Dry Wei	ght+Tare					
11:16:49	1.4390 1.5479	68							
11:22:15]	1.4302 1.5153								
11:43:59	1.4321 1.4990		Tripl	icate Batch #	80034				
13:11:00	1.4316 1.4837			The second secon					
16:49:00	1.4329 14919	1.47	46						
10:23:00 7	1.4305 1.4629								

Project #: PTO 1 CO3 Location: 17A 0 304-08 Lab # TTT - 0243-2 Date Sampled: 01-24-17 Description: Crey sandy Sitt Equipment Used: TA-001, TA-002, TSA-70 SOLIDS CONTENT Moisture Content Initials: FO Tare # 130 Tare Weight 1.5 256 Wet Weight+Tare 29.7910 Sampled by: others Date Sampled: 01-24-17 Equipment Used: TA-001, TA-002, TSA-70 Sieve Date: 01-27-17 Sieve Date: 01-27-17 Sieve Set #: 1 Initials: FO Sieve Size Weight Retained	Eagle Howber Client: Analytical Resucce	
Date Sampled: 01-24-17 Lab # TT - 0243-2 Date Setup: 01-24-17 Description: Line Sampled: 01-24-17 Equipment Used: RA-001, RA-002, TSA-40 SOLIDS CONTENT SIEVE ANALYSIS Moisture Content Initials: 40 Tare # 130 Tare Weight 1.5-256 Wet Weight+Tare 29.7910 Date Sampled: 01-24-17 Equipment Used: RA-001, RA-002, TSA-40 Sieve Date: 01-24-17 Sieve Set #: 1 Initials: 40 Sieve Size Weight Retained	Sampled by: Others	
Date Setup: O1-26-17 Description: Crey savely 8-14 SOLIDS CONTENT Moisture Content Initials: FO Tare # 130 Tare Weight 1.5-256 Wet Weight+Tare 29.7910 Date Setup: O1-26-17 Equipment Used: TCA-001, TCA-002, TSA-70 Sieve ANALYSIS Sieve Date: O1-27-17 Sieve Set #: Initials: FO Sieve Size Weight Retained	304-08 Date Sampled: 01-24-17	_
Description: Crey sandy Sit Equipment Used: TRA-001, TRA-001 SOLIDS CONTENT SIEVE ANALYSIS Moisture Content Initials: Wo Tare # 130 Tare Weight 1.5-256 Wet Weight+Tare 29.7910 Equipment Used: TRA-001, TRA-001 Sieve Date: Or 27-17 Sieve Set #: Initials: Wo Sieve Size Weight Retained		_
SOLIDS CONTENT Moisture Content Initials: Tare # Tare Weight Very Weight+Tare 130 Wet Weight+Tare 130 Sieve Date: Or 27.17 Sieve Set #: Initials: Vo Sieve Size Weight Retained	A STATE OF THE STA	_
Moisture Content Initials: Ho Tare # Tare Weight Vet Weight+Tare Moisture Content Initials: Ho Sieve Date: Or 27 · 17 Sieve Set #: Initials: Ho Sieve Size Weight Retained		plet
Tare # 130 Sieve Date: Or 27 · 17 Sieve Set #: Sieve Set #: Tare Weight 1.5 25 6 Wet Weight+Tare 29 · 7910 Sieve Size Weight Retained	Initials:	
Tare Weight 1.5.256 Wet Weight+Tare 29.7910 Sieve Size Weight Retained	Sieve Date: 0: 27 · 17	=:
Wet Weight+Tare 29.7910 Sieve Size Weight Retained	Sie to Sein.	-
Sieve Size Weight Retained	initials.	,
	Sieve Size Weight Retained	
Dry Weight+Tare 20. 7188 Tare 50. 9232	20. 7188 Tare 50. 9232	
#4 51.5362	#4 51.5362	
Test Sample Initials: 40 #10 59.7916	Initials	
Tare # 130 #18 65.6570	110	
Tare Weight 50.9191 #35 07.7950	1125	
Wet Weight+Tare 95.2588 #60 76.7952		
Dry Weight+Tare 74.4510 #120 #120 #72.1530	711 (15.0	
#230 74.0812		
Calgon Batch #: 3360 PAN 0.3972	220	
PIPETTE ANALYSIS SALT CORRECTION	ANALWOR	
Temp:22 TIME Initials: Date: Initials:	VS	
11:18:00 Tare # Tare Wt Dry Wt+Tare Tare Weight	Tare Wt Dry Wt+Tare Tare Weight	
11:18:20 0243-2 1.4415 1.5712 Dry Weight+Tare	1.4415 1.5712 Dry Weight+Tare	
11:19:49 2 1.4297 1-5329	- ED 40	
11:25:15 3 1.4323 1.5116		
0243. 2		
11:46:59 4 (.445) 1.5119 Triplicate Batch # 60054	A LOS CONTRACTOR OF THE PARTY O	
16:52:00 6 1-45308 1.5729 14859 15715	to Comment	
10:26:00 - 1.5Z10 + 4049 1-5522		

Project: Fact S	2-11/1		1		
Project #: -	age Harbon	Client: Analytican Resauce			
Project #:		Sampled by: Other's			
Location: 17A0		Date Sample	d: 01-2d	-17	
Lab # 177-0	243.3	Date Setup	0:0120-	17	
	Sanly Sitt	Equipment Used			
SOLID	S CONTENT			ANALYSIS	
Moisture Content	Initials: Ko		Sieve Data	. 0. 07	
Tare #	145			01.27.17	
Tare Weight	1-5262		Sieve Set #		
Wet Weight+Tare	30.8972		Initials		
Dry Weight+Tare	000		Sieve Size	Weight Retained	
	25.3482		Tare	50.6902	
Test Sample	Y		#4	52-1386	
	Initials:		#10	58 60. 1403	
Tare #	145		#18	63.7254	
Tare Weight	50.6871		#35	60 2095	
Wet Weight+Tare	95.2790		#60	71.2419	
Dry Weight+Tare	74.7426		#120		
			#230	72,6638	
Calgon Batch #:	336		PAN		
2/3/2017 PIPETTE	ANALYSIS	ļ		0.4412	
Temp:22	40	_	SALT COR		
THVIE		Date:		Initials:	
11:21:00 Tare #	Tare Wt Dry Wt+Tare	Tare V	Veight		
11:21:20 /	1.5304 1-6623	Dry Weig	ght+Tare		
11:22:49 Z	1.5241 1.629508	9		-	
11:28:15	1.52301.60002	,			
11:49:59	-5284 1.5944	Tripli	cate Batch #_	BOOZU	
13:17:00	1.5220 159456	5729	-	7	
16:55:00 0243.3	15/4461-5715 1	- 4859			
10:29:00	4320 -5522	1-4649			
		•			

PSEP GR	AIN SIZE ANALYSIS				
Project: East Eagle Harber	Client: Analytical Resources				
Project #: 17001-003	Sampled by: Others				
Location: 17 A0304-01	Date Sampled: <u>61.23.17</u>				
Lab # 177 · 0236	Date Setup: 0126.17				
Description: Con boun Sindwish SOLIDS CONTENT	Equipment Used: 73A DOI 720 - WE TSA - 106 7 SIEVE ANALYSIS				
Moisture Content Initials:					
Tare # 166	Sieve Date: 01-27-17				
Tare Weight 1-5193	Sieve Set #:				
Wet Weight Torre	Initials: W				
Dry Weight+Tare 86.8797	Sieve Size Weight Retained				
11.2013	Tare 50. 78 72				
Test Sample Initials:	#4 58.6670				
Test Sample Initials: 40	#10 71.3612				
166	#18 91.2636				
Tale Weight 50- 47-908	#35 117.8272				
Wet Weight+Tare	#60 145.0801				
Dry Weight+Tare 166.6987	#120 157.8365				
	#230 165.2466				
Calgon Batch #: 336	PAN (-3386)				
2/3/2017 PIPETTE ANALYSIS Temp:22	SALT CORRECTION				
TIME Initials: VO	Date: Initials:				
11:24:00 Tare # Tare Wt Dry Wt+Tare	Tare Weight				
11:24:20 / 1.4433 1.5953	Dry Weight+Tare				
11:25:49 2 1.4415 1-59356					
11:31:15 3 / 5342 / (0/3)					
11:52:59 4 1.5254 1.5918	Triplicate D. (1 // O o o o o o o o				
0236	Triplicate Batch # 80034				
13:20:00 5 1.5390 1.5954 02.36 1.5267 1.5723					
0234 5752 575					
10:32:00 7 7.5234 1.5655					

Project: East ?	Eagle Harber	Client	: Anali	t: A		
Project #: 17700		Sampled by: Other				
Location: 17 AO	304.02	Date Sampled: 01.23.17				
Lab # 177-02	AND THE RESERVE OF THE PERSON					
Description: boun of SOLID	onely silf	Equipment Used: 724-001 TZA-002 TZA-000 SIEVE ANALYSIS				
Moisture Content	Initials: Yo		Ciorra Data			
Tare #	170			01.27.17		
Tare Weight	1.5237			2		
Wet Weight+Tare	63.6863	8	Initials: Sieve Size	Weight Retained		
Dry Weight+Tare	49.5139		Tare	49.3526		
			#4	53.7605		
Test Sample	Initials: Ko		#10	54.6328		
Tare #	170		#18	57.3939		
Tare Weight	49.8495		#35			
Wet Weight+Tare	119.3159		#60	77.4801		
Dry Weight+Tare	97.8599		#120	10		
			#230	96.4293		
Calgon Batch #:	336		PAN	1.4292		
2/3/2017 PIPETTE	ANALYSIS	SALT CORRECTION				
Temp:22 TIME Initials:	40	Date:	SALT COR	Initials:		
11:27:00 Tare #	Tare Wt Dry Wt+Tare	Tare W	eight			
11:27:20	1.4342 1.5910	Dry Weig				
11:28:49	1.4314 1.5273					
11:34:15	1.4342 1.5065					
11:55:59 9 4	14285 1.4824	Triplic	cate Batch #	Barris		
13:23:00	4348 1.4854	Tipin	date Batell #_	500.04		
17:01:00	.4286 1.4703					
10:35:00	1.433/ 1.4604					

	Proje	ect: East	Eagle !	tarac		Clier	nt: Ana	legtional Rosa	
		#: 17700				Sampled b	y: Other	There Missa	uces
	Location	on: 17.40	304-0	3	p - 1000		d: 01-23	9	-
	Lat	# ST7 -	0238			Date Setup	200	W 17	3
	Description	on: Boun	n Si/	to Son	 E			RA-002- BA+	
		SOLII	S CONTEN	T		•		ANALYSIS	067
	Moist	ure Content	Initials	s: Ko					
	7	Γare #	100		-			01.31.17	
	Tare	e Weight	1.52	24	1		Sieve Set #		
	Wet W	eight+Tare		5 50.5846	-		Initials:		
	Dry W	eight+Tare	37.19	956	4		Tare	Weight Retained	
			101.1	100			#4	50.6003	
	Test	Sample	Initials	. Ko	7	· ·	#10	50.8073	
	Т	are #	10%		1		#18	51.3955	
	Tare	Weight		1963		**	#35	53. 3582	
	Wet We	eight+Tare	158.9				#60	05-3825	
	Dry We	eight+Tare	121.20				#120	96.5620	
	-]			113.9674	
1	Calg	Ban on Batch #: ¿	336				#230	120.1313	
	2/3/2017		E ANALYSIS			l	PAN	1.088)	
	Temp:22 TIME	Initials:	40	8		Б.	SALT COR		
		Tare #		-		Date:		Initials:	
	11:30:00	0238	Tare Wt	Dry Wt+Tare		Tare W	Veight		
	11:30:20	0238	1.4407	1-10255		Dry Weig	tht+Tare		
1	1:31:49	0238	1.4369	1.5044					
1	1:37:15	3	1.45269	1.6281					
1	1:58:59	0238	1.5410			Tripli	cate Batch #_	Roosy	
1	3:26:00	5	1-4383-	1-5778 K	1.50	54	_		
1	7:04:00	0238	(. 5239	5778					
1	0:38:00		1.5189	1.5609					
				1					

	Proje	ect: East	Egglo	Harber		Clier	t. 10	1	
		#: 17700						Tral Perouse	
		on: 17AC					y Other		
		#17-0			-	Date Setur	1:01-23. Nev	7	
		on: Cony-1		Santevi	— Eo		DI 30.1		7
		SOLID	S CONTEN	T Silf		aipinont Osec		TA-CUZ BA	-1067
	Moist	ure Content	Initials	s: Ko	7				
	7	Γare #	12	52	1			01.31.17	•
	Tare	e Weight	1.52		1		Sieve Set #		
	Wet W	eight+Tare	75.9		1		Initials Sieve Size		1
	Dry W	eight+Tare	62.25		-		Tare	Weight Retained	
				• •	_		#4	49.3140	
	Test	Sample	Initials:	Ко	1		#10	52.2089	
	T	are#	13	2	1		#18	53. 55.2662	•
	Tare	Weight	49.2		1			59.8237	
	Wet We	eight+Tare		7502	1		#35	81.3190	
	Dry We	eight+Tare	163.3				#60	122.134+	
			100.0	100			#120	142.0355	
	Calg	on Batch #:	32(0	/			#230	159.7723	
	2/3/2017		ANALYSIS			Į	PAN	3.5037	
	Temp:22	Initials:		•			SALT COR		
	TIME	Tare #			, Г	Date:		Initials:	
	1:33:00	0239	Tare Wt	Dry Wt+Tare		Tare W	Veight		
	1:33:20	0239	1.5148	1.7579	L	Dry Weig	tht+Tare		
1	1:34:49	0239	1.5255	1.6419					
1	1:40:15	0239	.5333	16187					
1:	2.01.50	4	1.4343	1.5051		Triplic	cate Batch #_	80034	
13	3:29:00	0239	1.5/62	1.5761					
17	7:07:00	0289	.5189	1.5677					
10	0:41:00	7 1	4877	1.4768					

Project: East	Eagle Harbur	Clien	t: Angli	to Remain	,	
Project #:		Sampled by	Client: Analytical Personeers Sampled by: Other			
Location: 17 A O	304-05	Date Sampled: 02-24 17				
Lab# TT+ C	240			26.17	-	
Description: Description	sur Silty Done				-	
SOLID	S CONTENT	Equipment Used: RA-WI TRA-OUR TSA-WI SIEVE ANALYSIS				
Moisture Content	Initials: 140		Sieve Date	K)		
Tare #	194		Sieve Set #	01 01 27-1	7	
Tare Weight	1.5370	1	Initials:			
Wet Weight+Tare	89.2298		Sieve Size	Weight Retained	l	
Dry Weight+Tare	59.6478		Tare	50.4799		
		-	#4	51 0951		
Test Sample	Initials: 6		#10	51.2105		
Tare #	194		#18	54 51.6231		
Tare Weight	50.4740		#35	52.9480		
Wet Weight+Tare	107-39104		#60	57-9115		
Dry Weight+Tare	82.2115		#120	67.6983		
			#230	79.9504		
Calgon Batch #:	336		PAN	2.2811		
Temp:22	ANALYSIS		SALT COR	RECTION		
TIME Initials:	40	Date:		Initials:		
11:36:00 Tare #	Tare Wt Dry Wt+Tare	Tare W	/eight			
11:36:20 0 2 40	1.4250 1.5889	Dry Weig	tht+Tare			
	1.4235 1.5085	100				
	1.5220 (-5850					
12:04:59	1.5240 1.575	Triplic	cate Batch #	B0034		
13:32:00 5	1.5120 1.5548		_			
17:10:00	15343 1.5699					
10:44:00 7	15229 1-5533					

	C		4	TOTAL TO MATERIAL TOTAL				
		Eagle	ttarbur	Client: Analytia Presource				
Project #:	17FC	01003		Sampled by: Others				
Location:	ITAO	304-()6	Date Sampled: 0(24.17				
Lab#	177-C	1126			p: 01 26.			
Description:	Brun	- Sell	is Sand					
with	SOLID	S CONTEN	Tayonens	Equipment Used: TCA-COL TSA-KOCK SIEVE ANALYSIS				
Moisture	Content	Initials	:: K 0		SIEVE	MALISIS		
Tare	e #				Sieve Date	01-27-17		
Tare W	eight	205			Sieve Set #	:		
Wet Weig	ht+Tare	1533	12//2004		Initials	K		
Dry Weigl		35.50	214		Sieve Size	Weight Retained		
		120.0	\$825		Tare	50.1482		
Test Sai	mnle	Initial.	1/ = -		#4	52.6211		
		Initials: 40			#10	60.1969		
Tare We	Tare #		205		#18	63.5133		
		50.1390			#35	66.9238		
Wet Weigh		97.6820			#60	69.5669		
Dry Weigh	t+Tare	77-4792			#120	72.6286		
					#230	76.6851		
CONTRACTOR OF THE PARTY OF THE	Batch #: 2	336			PAN	2.3836		
2/3/201 <i>7</i> Temp:22	PIPETTE	ANALYSIS			SALT COR	RECTION 0.947	1	
TIME	Initials:	40		Date:		Initials:		
11:39:00	Tare #	Tare Wt	Dry Wt+Tare	Tare V	Weight			
11:39:20	241	1.5312	1.6834	Dry Wei	ght+Tare			
11:40:49	241	1.5171	1.6222					
11:46:15	3	1.5197	1-10021					
12:07:59	241	1.5257	1.5897	Trin1	icate Batch #	D.		
13:35:00	5	15140	1.5653	11101	Leate Daten #_	Boosy		
17:13:00	6 1	5327	1.5731					
10:47:00	41	5355	1.5607					

	Project: East Eagle Harry	Client: Analytical Resources
	Project #: 17700 1 003	Sampled by: Others
	Location: 17A0304-07	Date Sampled: 01 24 17
	Lab # 177-0242	Date Setup: 01 26 17
	Description: Darkboure Soundy & 4	Equipment Used: TOD VOI, TOD VOI, TSA-1067
	SOLIDS CONTENT	SIEVE ANALYSIS
	Moisture Content Initials: 40	
	Tare # 200	Sieve Date: 01-27-17
	Tare Weight 1-5365	Sieve Set #: 2
	Wet Weight+Tare 52, 0259	Initials: Sieve Size Weight Retained
	Dry Weight+Tare 36.(170	- San Atotalied
		91.7057
	Test Sample Initials: 40	#10 59.5369
	Tare # 210	#18 62.5699
	Tare Weight 49.7585	#35 66 02303
	Wet Weight+Tare 98.9483	#60 68.6689
	Dry Weight+Tare 76.9032	#120 71.7482
Г		#230 75-6293
- 1	Calgon Batch #: 336	PAN 1.1294
	PIPETTE ANALYSIS Temp:22	SALT CORRECTION
-	TIME Initials: 1	Date: Initials:
1	1:42:00 Tare # Tare Wt Dry Wt+Tare	Tare Weight
1	1:42:20 1.5178 1-484	Dry Weight+Tare
1	1:43:49 2 1.52 13 1.6319	
1	1:49:15 3 1.5270 1.6097	
1	2:10:59 4 1.5270 1.5878	Triplicate Batch # 60054
1	3:38:00 5 1.5228 1.5719	
1	7:16:00 6 6302 1.5696	
1	0:50:00	

Calgon Batch #336

Tave + Dry Calgon (s) Dry Calgon (g) Tare Wt (g) 0.4815 2.0002 1 1.5187 2.0087 0.4790 21.5297 2.0024 1.90979 0.4761 31.543 0.4741 4 1.4338 1.9139 0.4774 5 1.4415

Average = 047762



SUBCONTRACT ORDER To: Materials Testing & Consulting, Inc. ARI Work Order:17A0304

Need plag - NIC New Triplicate - NC

Std pricing okay.

SENDING LABORATORY:

Analytical Resources, Inc. 4611 S. 134th Place, Suite 100

Tukwila, WA 98168 Phone: (206) 695-6200 Fax: (206) 695-6201

Project Manager:

Cheronne Oreiro

RECEIVING LABORATORY:

Materials Testing & Consulting, Inc.

777 Chrysler Drive

Burlington, WA 98233 Theusla Phone :(360) 755-1990 Office

Fax: (360) 755-1980

Client: HDK

Project: East Eagle Harbor

Ou 2016 omme monitoring

Analysis	Due	Exp	ires	Sub Laboratory ID	Comments
Sample ID: 17A0304-01	Solid	Sampled:23-	Jan-2017 09:37	TT7-0236	
Grainsize PSEP (Subc)	08-Feb-20	17 15:00 25-J	ul-2017 02:25	111 0210	
Containers Supplied:					
Sample ID: 17A0304-02	Solid	Sampled:23-J	an-2017 11:04	177-0237	
Grainsize PSEP (Subc)	08-Feb-20	17 15:00 25-J	ul-2017 03:52		
Containers Supplied:					
Sample ID: 17A0304-03	Solid	Sampled:23-J	an-2017 14:41	T7-0238	
Grainsize PSEP (Subc)	08-Feb-201	7 15:00 25-Ji	ıl-2017 07:29	114-0C50	
Containers Supplied:					
ample ID: 17A0304-04	Solid	Sampled:23-J	an-2017 15:48	TT7-02.26	
Grainsize PSEP (Subc)	08-Feb-201		1-2017 08:36	777-0239	
Containers Supplied:			2017 00.50		
	10				
ample ID: 17A0304-05	G.P.I	6			
Grainsize PSEP (Subc)	Solid	Sampled:24-Ja		77-0240	
Containers Supplied:	08-Feb-201	/ 15:00 26-Ju	1-2017 01:57		
этинег з зиррней.					

Received By

1.25.17@124

Released By

Date

Received By

Date

Printed: 1/25/2017 8:43:33AM

Page 1 of 2



SUBCONTRACT ORDER To: Materials Testing & Consulting, Inc. ARI Work Order:17A0304

Analysis	Due	Expires	Sub Laboratory ID	Comments	
Sample ID: 17A0304-06	Solid	Sampled:24-Jan-2017 10	115 77 - 0241		
Grainsize PSEP (Subc)	08-Feb-2	017 15:00 26-Jul-2017 03:	117 0. 11		
Containers Supplied:					
Sample ID: 17A0304-07	Solid	Sampled:24-Jan-2017 13	:31 77-0242		
Grainsize PSEP (Subc)	08-Feb-20	017 15:00 26-Jul-2017 06:			
Containers Supplied:					
4910					
Sample ID: 17A0304-08	Solid	Sampled:24_Ian_2017 11.	50 - 2		
Grainsize PSEP (Subc)	08-Feb-20	Sampled:24-Jan-2017 11: 017 15:00 26-Jul-2017 04:3			
Containers Supplied:		20 341 2017 04.5	10		
2000					

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Date

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1.25.17@12:08

5.0°C

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Date

Received By

Date

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